

Curriculum Vitae

Christoph J. Senff

Research Scientist III

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Education

1993 Ph.D. in Atmospheric Sciences, University of Hamburg, Germany

1988 M.S. in Physics, University of Bonn, Germany

Research Experience

1996 - present Research Scientist, CIRES, University of Colorado and NOAA Chemical Sciences Laboratory, Boulder, CO

1995 - 1996 CIRES Postdoctoral Fellow, NOAA Environmental Technology Laboratory, Boulder, CO

1993 - 1995 Research Associate, Lidar Division, Max-Planck-Institute for Meteorology, Hamburg, Germany

1989 - 1993 Graduate Research Assistant, Lidar Division, Max-Planck-Institute for Meteorology, Hamburg, Germany

1986 - 1988 Graduate Research Assistant, Institute for Nuclear Physics at the Research Center Jülich, Germany

Honors and Awards

2019 NASA Group Achievement Award: Tropospheric Ozone Lidar Network (TOLNet)

2015 NASA Group Achievement Award: DiscoverAQ Project

2008 ICLAS Recognition for Outstanding Service as ILRC Program Committee Co-Chair

2004 CIRES/NOAA OAR Outstanding Paper Award (coauthor)

2003 NOAA/ETL Certificate of Recognition for Outstanding Performance

1999 NOAA/ETL Certificate of Recognition for Outstanding Performance

Research Interests

Dr. Senff's main research interests are the application of lidar in air quality, climate change, and boundary layer research to investigate topics such as transport of ozone and its impact on surface air quality as well as turbulence statistics, fluxes, and budgets of trace gases in the boundary layer.

Selected Refereed Publications

- Behrendt, A., V. Wulfmeyer, C. Senff, S. K. Muppa, F. Spaeth, D. Lange, N. Kalthoff, A. Wieser, 2020: Observation of sensible and latent heat flux profiles with lidar. *Atmos. Meas. Tech.*, 13, 3221-3233, doi: <https://doi.org/10.5194/amt-13-3221-2020>.
- Langford, A. O., R. J. Alvarez, J. Brioude, D. Caputi, S. A. Conley, S. Evan, I. C. Faloona, L. T. Iraci, G. Kirgis, J. E. Marrero, J.-M. Ryoo, C. J. Senff, E. L. Yates, 2020: Ozone Production in the Soberanes Smoke Haze: Implications for Air Quality in the San Joaquin Valley During the California Baseline Ozone Transport Study. *J. Geophys. Res.*, 125, 11, doi: <https://doi.org/10.1029/2019JD031777>.
- Wulfmeyer, V., D. Turner, B. Baker, R. Banta, A. Behrendt, T. Bonin, W. Brewer, M. Buban, A. Choukulkar, E. Dumas, R. Hardesty, T. Heus, J. Ingwersen, D. Lange, T. Lee, S. Metzendorf, S. Muppa, T. Meyers, R. Newsom, M. Osman, S. Raasch, J. Santanello, C. Senff, F. Späth, T. Wagner, and T. Weckwerth, 2018: A New Research Approach for Observing and Characterizing Land-Atmosphere Feedback, *Bull. Amer. Meteor. Soc.*, doi:10.1175/BAMS-D-17-0009.1.
- Langford, A. O., R. J. Alvarez II, J. Brioude, R. Fine, M. Gustin, M. Y. Lin, R. D. Marchbanks, R. B. Pierce, S. P. Sandberg, C. J. Senff, A. M. Weickmann, and E. J. Williams, 2016: Entrainment of stratospheric air and Asian pollution by the convective boundary layer in the southwestern U.S., *J. Geophys. Res. Atmos.*, 122, doi:10.1002/2016JD025987.
- Langford, A. O., Senff, C. J., Alvarez II, R. J., Brioude, J., Cooper, O. R., Holloway, J. S., Lin, M. Y., Marchbanks, R. D., Pierce, R. B., Sandberg, S. P., Weickmann, A. M., Williams, E. J., An Overview of the 2013 Las Vegas Ozone Study (LVOS), 2015: Impact of stratospheric intrusions and long-range transport on surface air quality, *Atmospheric Environment*, 109, 305-322, doi: 10.1016/j.atmosenv.2014.08.040.
- P. M. Edwards, S. S. Brown, J. M. Roberts, R. Ahmadov, R. M. Banta, J. A. deGouw, W. P. Dubé, R. A. Field, J. H. Flynn, J. B. Gilman, M. Graus, D. Helmig, A. Koss, A. O. Langford, B. L. Lefer, B. M. Lerner, R. Li, S.-M. Li, S. A. McKeen, S. M. Murphy, D. D. Parrish, C. J. Senff, J. Soltis, J. Stutz, C. Sweeney, C. R. Thompson, M. K. Trainer, C. Tsai, P. R. Veres, R. A. Washenfelder, C. Warneke, R. J. Wild, C. J. Young, B. Yuan, and R. Zamora, 2014: High Winter Ozone Generated by Carbonyl Photolysis in a Shale Gas and Oil Producing Region, *Nature*, 514, 351-354, doi:10.1038/nature13767.
- Senff, C. J., R. J. Alvarez, II, R. M. Hardesty, R. M. Banta, and A. O. Langford, 2010: Airborne lidar measurements of ozone flux downwind of Houston and Dallas, *J. Geophys. Res.*, 115, D20307, doi:10.1029/2009JD013689.